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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/636,571	08/10/2000	Kazuhiko Nakamura	D01-4120/TK	6450
27717	7590	11/22/2004	EXAMINER	
SEYFARTH SHAW 55 EAST MONROE STREET SUITE 4200 CHICAGO, IL 60603-5803			ROBERTSON, JEFFREY	
			ART UNIT	PAPER NUMBER
			1712	

DATE MAILED: 11/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/636,571	<b>Applicant(s)</b> NAKAMURA ET AL. <span style="float: right;">PA</span>	
	<b>Examiner</b> Jeffrey B. Robertson	<b>Art Unit</b> 1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 55,57-78,80-85,87-90,92-94 and 99-106 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 66-78 and 105 is/are allowed.
- 6) ☒ Claim(s) 55,57-65,80-85,87-90,92-94,101 and 102 is/are rejected.
- 7) ☒ Claim(s) 99,100,103,104 and 106 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 100 and 106 are objected to because of the following informalities: in claim 100, the spacing of the words in line 3 needs to be corrected. In claim 106, line 8, "with" is misspelled. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 80-85, 87-90, and 92-94 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 80-85, 87-90, and 92-94 are dependant directly or indirectly from cancelled claims 79, 86, and 91 respectively. Accordingly, there is a lack of antecedent basis in the claim limitations of these claims. In addition, the examiner cannot treat these claims on their merits because the limitations of the claims are not known.

### ***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 55, 57-65, 101, and 102 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Scheve (4717643).

The reference teaches a hardenable resin composition comprising a polymer prepared from acrylate monomers including acrylic acid and a hydroxy acrylate that is reacted with isocyanatoethyl methacrylate in the presence of triphenyl phosphite stabilizer and further reacted with hydroxylpropyl methacrylate. See examples 1 and 3-5. The hydroxylpropyl methacrylate inherently reacts with any acid anhydride side product to produce an ester bond. Further, the claimed product, containing alcohol ester bonded to part of the acidic functional group, does not distinguish over the products of the reference containing copolymerized methacrylates.

#### ***Response to Arguments***

6. Applicant's arguments filed 9/13/04 have been fully considered but they are not persuasive. Applicant argues that the amount of acid anhydride group produced on a principal chain of the polymer is much less than if the isocyanate compound is used in excess. Applicant argues that Scheve uses the isocyanate compound in excess. Applicant also argues that since the HMPA used in the Scheve is mainly consumed in order to remove the residual IEA, the acid anhydride groups on the principal chain on the polymer is not decomposed or the decomposition is not efficient. Applicant argues that the polymer disclosed in Scheve therefore contains a higher amount of acid anhydride groups and is therefore inferior in stability.

In response the examiner notes that these arguments are not commiserate in scope with the instant claims. The claims contain no indication of the amounts used to produce the polymer or a content of anhydride groups present. As to the stability of the polymer, there is no measurement of stability that appears in the claim. To the extent

that the HMPA reacts with the acid anhydride groups on the polymer, it would be more stable than a polymer that did not have the benefit of this treatment. Therefore, applicant's arguments are not persuasive and the rejection set forth above has been continued.

***Allowable Subject Matter***

7. Claims 66-78 and 105 are allowed. Claim 106 would be allowed if rewritten to overcome the claim objections set forth above. For claims 66-78, although these claims were indicated as being objected to by the previous examiner (who has retired), upon reviewing the claims the current examiner finds these claims to be allowable since claim 66 is an independent claim.


8. Claims 99, 100, 103, and 104 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey B. Robertson whose telephone number is (571) 272-1092. The examiner can normally be reached on Mon-Fri 7:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jeffrey B. Robertson  
Primary Examiner  
Art Unit 1712

JBR